

Response under 37 C.F.R. § 1.116
U.S.S.N 10/805,493

Q74796

I. Prior Art Rejections

Claims 1-3 are rejected under 35 U.S.C. § 102(b) as being anticipated by Hashimoto (U.S. Pat. Pub. No. 2002/0024740). Claims 1, 3-5, 7-11, 13, 14 and 16-19 are rejected under 35 U.S.C. § 102(b) as being anticipated by Applicant's Admitted Prior Art (AAPA). Claims 4, 6, 12, 15 and 20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hashimoto (U.S. Pat. Pub. No. 2002/0024740) in view of Applicant's Admitted Prior Art (AAPA). Applicant respectfully submits that the claimed invention would not have been anticipated by Hashimoto or rendered obvious in view of Applicant's Admitted Prior Art (AAPA).

Independent claim 1 is directed to "[a]n illumination system." Independent claim 1 recites:

- a light source;
- a first cylindrical lens array including a plurality of first cylindrical lens cells which divide light emitted from the light source into a plurality of beams;
- a second cylindrical lens array including a plurality of second cylindrical lens cells which combine the beams divided by the first cylindrical lens cells in a same direction; and
- a relay lens which relays the beams combined by the second cylindrical lens cells so that a majority of the beams concentrate on an incident light axis to have a Gaussian distribution.

In the Amendment filed May 5, 2006, Applicant argued that Hashimoto does not teach or suggest "a relay lens which relays the beams combined by the second cylindrical lens cells so that a majority of the beams concentrate on an incident light axis to have a Gaussian distribution," as required by independent claims 1 and 5; or "processing the light emitted from the light source to have a Gaussian distribution in a color separation direction by combining the

light emitted from the light source in a direction perpendicular to the color separation direction and concentrating a majority of the light on an incident light axis in the color separation direction,” as required by independent claim 13.

In response the Examiner asserts:

the patented apparatus of Hashimoto discloses the claimed structure, and as such was considered to inherently perform the claimed Gaussian light distribution.² The Examiner relies on the principle that where “a prior art apparatus is identical or substantially identical in structure, claimed properties or functional characteristics are presumed to be inherent, and a prima facie case of anticipation or obviousness has been established.”

Applicant respectfully disagrees with the Examiner’s position. Paragraph 0036 and FIG. 3B of Hashimoto discloses that the laser beam incident on the spatial light modulator 13 (i.e., passing through the cylindrical lens 19 which the Examiner asserts corresponds to the claimed relay lens) form a laser beam L having a substantially uniform distribution. Nowhere does Hashimoto mention anything about relaying the beams to concentrate on an incident light to have a Gaussian distribution. Paragraphs 11 and 12 of the AAPA discloses that the light passes through the condensing lens 107 (which the Examiner asserts corresponds to the claimed relay lens) has a square distribution.

Similarly, AAPA does not teach or suggest these features of the claimed invention which are missing from Hashimoto.

² See page 14, first paragraph of the Office Action

Applicant respectfully submits that “the fact a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result.”³ The legal standard, “[t]o establish inherency [requires that], the extrinsic evidence ‘must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill.’”⁴ Further, “[t]he mere fact that a certain thing may result from a given set of circumstances is not sufficient.”⁵ In this case, the Examiner has not provided extrinsic evidence that a Gaussian distribution exists in the Hashimoto reference.

Further, Applicant respectfully submits that the Examiner’s assertion that the prior art is identical or substantially identical in structure to the claimed invention is incorrect. In particular, it is the structure of the claimed relay lens of apparatus claims 1-12 which relays the beam so that a majority of the beams concentrate on an incident light axis to have a Gaussian distribution. Additionally, Applicant respectfully submits that the Examiner’s position is not even applicable to independent method claim 13 which recites operational steps rather than structural elements.

Lastly, Applicant respectfully submits that “[a] functional limitation must be evaluated and considered, just like any other limitation of the claim, for what it fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used.” See MPEP §2173.05(g). The functional limitation recited in independent claims 1 and 5 (i.e., so that a majority of the

³ *In re Rijckaert*, 28 USPQ 2d 1955, 1957 (Fed. Cir. 1993)

⁴ *In re Robertson*, 49 USPQ 2d 1949, 1950-51 (Fed. Cir. 1999)

⁵ *In re Robertson*, 49 USPQ 2d 1949, 1950-51 (Fed. Cir. 1999)

beams concentrate on an incident light axis to have a Gaussian distribution), defines a particular capability or purpose that is served by the recited element (i.e., a relay lens), sets definite boundaries on the patent protection sought, and serves to precisely define the present structural attributes of the interrelated component parts of the claimed assembly.

Accordingly, Applicant respectfully submits that independent claims 1, 5 and 13, as well as dependent claims 2-4, 6-12 and 14-20, should be allowable because the cited references, alone or in combination, do not teach or suggest all of the features of the claims, and one of ordinary skill in the art would not have been motivated to combine and modify the cited references to produce the claimed invention.

II. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.


Respectfully submitted,

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